

**CLEO CLEOTDIP6 V4.6 Cleo TN3270/TN5250 Host  
Interface for AVAYA IR R4.0/R3.0/R2.0/R1.X RELEASE  
NOTES**

**NOTE:**

**Please see Previous Release Notes (eg. V4.5, V4.4, V4.3, V4.2, V4.1, V4.0, V2.5) for previous enhancements/fixes to the Cleo TN3270/TN5250 Avaya Host Interface Software.**

**FEATURES ADDED**

**1. CLEOTDIP6 is the new name of the Cleo TN3270/TN5250 Host Interface for Avaya IR R4.0/R3.0/R2.0/R1.X.**

The name was changed to allow the new 4.6 Release, **CLEOTDIP6**, to be installed on top of an existing 4.5 Release, **CLEOTDIP5**, and preserve the existing configuration information. And if necessary remove the CLEOTDIP6 4.6 Release package and be restored to the CLEOTDIP5 4.5 Release Package. Also, any older existing TN3270 Host Interface software can have the Release 4.6, **CLEOTDIP6**, software package installed on top of it and preserve its current TN3270 configuration.

**2. CLEOTDIP6 will install on an Avaya IR4.0 system, and use the Avaya IR 3.0 Avaya Libraries, as well as install on an Avaya IR 3.0 or 2.0 or Avaya 1.X system.**

The previous Cleo Host Interface Software for TN3270/TN5250 would not allow the Cleo Host Interface software to install on an Avaya IR 4.0 system.

**3. CLEOTDIP6 changes the way the Host DIP starts, since run levels are no longer utilized.**

The CLEOTDIP5 package would install OK on Avaya IR 4.0. However, the Host DIP never started. Now the Host DIP starts when start\_vs is run and stops when stop\_vs is run, when using the CLEOTDIP6 package.

**4. A new Host DIP parameter DO\_NOALARM was added to the /vs/etc/default/agdip3270 Host Dip configuration file.**

By setting DO\_NOALARM to a value of 1, the Host DIP will not send Host ALARM notifications to the Avaya System. Previously all Host Alarms were sent to the Avaya System.

**PROBLEMS FIXED**

## **CLEO CLEOSDIP6 V4.6 Cleo SNA Host Interface for AVAYA IR R4.0/R3.0/R2.0/R1.X RELEASE NOTES**

### **NOTE:**

**Please see Previous Release Notes (eg. V4.5, V4.4, V4.3, V4.2, V4.1, V4.0, V2.5) for previous enhancements/fixes to the Cleo SNA Avaya Host Interface Software.**

### **FEATURES ADDED**

**1. CLEOSDIP6 is the new name of the Cleo SNA Host Interface for Avaya IR R4.0/R3.0/R2.0/R1.X.**

The name was changed to allow the new 4.6 Release, **CLEOSDIP6**, to be installed on top of an existing 4.5 Release, **CLEOSDIP5**, and preserve the existing configuration information. And if necessary remove the CLEOSDIP6 4.6 Release package and be restored to the CLEOSDIP5 4.5 Release Package. Also, any older existing SNA Host Interface software can have the Release 4.6, **CLEOSDIP6**, software package installed on top of it and preserve its current SNA configuration.

**2. CLEOSDIP6 will install on an Avaya IR4.0 system, and use the Avaya IR 3.0 Avaya Libraries, as well as install on an Avaya IR 3.0 or IR 2.0 or Avaya 1.X system.**

The previous Cleo Host Interface Software for SNA would not allow the Cleo Host Interface software to install on an Avaya IR 4.0 system.

**3. CLEOSDIP6 changes the way the Host DIP starts, since run levels are no longer utilized.**

The CLEOSDIP5 package would install OK on Avaya IR 4.0. However, the Host DIP never started. Now the Host DIP starts when start\_vs is run and stops when stop\_vs is run, using the CLEOSDIP6 package.

### **PROBLEMS FIXED**

**CLEO CLEOTDIP5 V4.5 Cleo TN3270/TN5250 Host  
Interface for AVAYA IR R4.0/R3.0/R2.0/R1.X RELEASE  
NOTES**

**NOTE:**

**Please see Previous Release Notes (eg. V4.4, V4.3, V4.2, V4.1, V4.0, V2.5) for previous enhancements/fixes to the Cleo TN3270/TN5250 Avaya Host Interface Software.**

**FEATURES ADDED**

**1. CLEOTDIP5 is the new name of the Cleo TN3270/TN5250 Host Interface for Avaya IR R4.0/R3.0/R2.0/R1.X.**

The name was changed to allow the new 4.5 Release, **CLEOTDIP5**, to be installed on top of an existing 4.4 Release, **CLEOTDIP4**, and preserve the existing configuration information. And if necessary remove the CLEOTDIP3 4.5 Release package and be restored to the CLEOTDIP3 4.4 Release Package. Also, any older existing TN3270 Host Interface software can have the Release 4.5, **CLEOTDIP5**, software package installed on top of it and preserve its current TN3270 configuration.

**2. CLEOTDIP5 will install on an Avaya IR4.0 system, and use the Avaya IR 3.0 Avaya Libraries, as well as install on an Avaya IR 3.0 or 2.0 or Avaya 1.X system.**

The previous Cleo Host Interface Software for TN3270/TN5250 would not allow the Cleo Host Interface software to install on an Avaya IR 4.0 system.

**3. A new Host DIP parameter DO\_NOALARM was added to the /vs/etc/default/agdip3270 Host Dip configuration file.**

By setting DO\_NOALARM to a value of 1, the Host DIP will not send Host ALARM notifications to the Avaya System. Previously all Host Alarms were sent to the Avaya System.

**PROBLEMS FIXED**

**1. A problem with the TN3270/TN5250 software not retrying when a Mainframe outage occurs, has been fixed.**

The TN3270/TN5250 software was not retrying to connect to the mainframe every 5 seconds, as it should have been. As a result, a manual stop\_hi/start\_hi sequence was necessary to reconnect to the Mainframe after the Mainframe service was restored.

## **CLEO CLEOSDIP5 V4.5 Cleo SNA Host Interface for AVAYA IR R4.0/R3.0/R2.0/R1.X RELEASE NOTES**

### **NOTE:**

**Please see Previous Release Notes (eg. V4.4, V4.3, V4.2, V4.1, V4.0, V2.5) for previous enhancements/fixes to the Cleo SNA Avaya Host Interface Software.**

### **FEATURES ADDED**

**1. CLEOSDIP5 is the new name of the Cleo SNA Host Interface for Avaya IR R4.0/R3.0/R2.0/R1.X.**

The name was changed to allow the new 4.5 Release, **CLEOSDIP5**, to be installed on top of an existing 4.4 Release, **CLEOSDIP4**, and preserve the existing configuration information. And if necessary remove the CLEOSDIP5 4.5 Release package and be restored to the CLEOSDIP3 4.4 Release Package. Also, any older existing SNA Host Interface software can have the Release 4.5, **CLEOSDIP5**, software package installed on top of it and preserve its current SNA configuration.

**2. CLEOSDIP5 will install on an Avaya IR4.0 system, and use the Avaya IR 3.0 Avaya Libraries, as well as install on an Avaya IR 3.0 or IR 2.0 or Avaya 1.X system.**

The previous Cleo Host Interface Software for SNA would not allow the Cleo Host Interface software to install on an Avaya IR 4.0 system.

### **PROBLEMS FIXED**

## **CLEO CLEOTDIP4 V4.4 Cleo TN3270/TN5250 Host Interface for AVAYA IR R3.0/R2.0/R1.X RELEASE NOTES**

### **NOTE:**

**Please see Previous Release Notes (eg. V4.3, V4.2, V4.1, V4.0, V2.5) for previous enhancements/fixes to the Cleo TN3270/TN5250 Avaya Host Interface Software.**

### **FEATURES ADDED**

**1. CLEOTDIP4 is the new name of the Cleo TN3270/TN5250 Host Interface for Avaya IR R3.0/R2.0/R1.X.**

The name was changed to allow the new 4.4 Release, **CLEOTDIP4**, to be installed on top of an existing 4.3 Release, **CLEOTDIP3**, and preserve the existing configuration information. And if necessary remove the CLEOTDIP3 4.4 Release package and be restored to the CLEOTDIP3 4.3 Release Package. Also, any older existing TN3270 Host Interface software can have the Release 4.4, **CLEOTDIP4**, software package installed on top of it and preserve its current TN3270 configuration.

**2. CLEOTDIP4 will install on an Avaya IR3.0 system, and use the Avaya IR 3.0 Avaya Libraries, as well as install on an Avaya IR 2.0 or Avaya 1.X system.**

The previous Cleo Host Interface Software for TN3270/TN5250 did not have executables that were linked with the Avaya IR 3.0 Libraries.

### **PROBLEMS FIXED**

**2. A problem with TN5250 Pop Up screens not always accepting input data, was fixed.**

The previous version did not properly clear cached TOHOST Field information and as a result, an IVR Designer application could specify data to be sent in a TOHOST field, but the data never reached the AS400 Mainframe. This version fixes that problem.

## **CLEO CLEOSDIP4 V4.4 Cleo SNA Host Interface for AVAYA IR R3.0/R2.0/R1.X RELEASE NOTES**

### **NOTE:**

**Please see Previous Release Notes (eg. V4.3, V4.2, V4.1, V4.0, V2.5) for previous enhancements/fixes to the Cleo SNA Avaya Host Interface Software.**

### **FEATURES ADDED**

**1. CLEOSDIP4 is the new name of the Cleo SNA Host Interface for Avaya IR R3.0/R2.0/R1.X.**

The name was changed to allow the new 4.4 Release, **CLEOSDIP4**, to be installed on top of an existing 4.3 Release, **CLEOSDIP3**, and preserve the existing configuration information. And if necessary remove the CLEOSDIP4 4.4 Release package and be restored to the CLEOSDIP3 4.3 Release Package. Also, any older existing SNA Host Interface software can have the Release 4.4, **CLEOSDIP4**, software package installed on top of it and preserve its current SNA configuration.

**2. CLEOSDIP4 will install on an Avaya IR3.0 system, and use the Avaya IR 3.0 Avaya Libraries, as well as install on an Avaya IR 2.0 or Avaya 1.X system.**

The previous Cleo Host Interface Software for SNA did not have executables that were linked with the Avaya IR 3.0 Libraries.

### **PROBLEMS FIXED**

## **CLEO CLEOTDIP3 V4.3 Cleo TN3270/TN5250 Host Interface for AVAYA IR R3.0/R2.0/R1.X RELEASE NOTES**

### **NOTE:**

**Please see Previous Release Notes (eg. V4.2, V4.1, V4.0, V2.5) for previous enhancements/fixes to the Cleo TN3270/TN5250 Avaya Host Interface Software.**

### **FEATURES ADDED**

**1. CLEOTDIP3 is the new name of the Cleo TN3270/TN5250 Host Interface for Avaya IR R3.0/R2.0/R1.X.**

The name was changed to allow the new 4.3 Release, **CLEOTDIP3**, to be installed on top of an existing 4.2 Release, **CLEOTDIP**, and preserve the existing configuration information. And if necessary remove the CLEOTDIP3 4.3 Release package and be restored to the CLEOTDIP 4.2 Release Package. Also, any older existing TN3270 Host Interface software can have the Release 4.3, **CLEOTDIP3**, software package installed on top of it and preserve its current TN3270 configuration.

**2. CLEOTDIP3 will install on an Avaya IR3.0 system, as well as an Avaya IR 2.0 or Avaya 1.X system.**

The previous Cleo Host Interface Software for TN3270/TN5250 would fail to install on an Avaya IR 3.0 system. The installation process was changed in Version 4.3 of CLEOTDIP3 to now allow the Cleo Host Interface Software to be installed on an Avaya IR 3.0 system.

**3. NEW HOST("H") COMMAND, "hrfree", TO ONLY FREE AN ASSIGNED HOST SESSION, IF THE HOST SESSION IS IN, and STILL IN, a "logged in" STATE.**

The standard "hfree" command would free Host Session no matter what "state" the Host Session was in. This could cause a problem if a script would look for the state of a Host Session to be "logged in". And then the script would do an "hfree" command.

The problem with this process is that there is a time window when the Host Session that was in a "logged in" state could be changed to a "transaction" state, between the time of using hstatus to find the state and hfree to free the Host Session.

With the new "hrfree" host command, the Host Session is only "freed" if it is STILL IN A "logged in" state.

The new "hrfree" command was added, because scripts are often used to try to handle Mainframe IDLE TIMEOUTS by moving screens on a "logged in" Host Session to avoid having the Host Session be timed out by the Mainframe. The scripts that try to handle IDLE TIMEOUTS typically looked for "logged in" sessions, and then "hfree" the session to move screens. The problem with a Host Session intermittently moving out of "logged in" state, due to use by a caller, was occurring for these scripts. The new "hrfree" command avoids "freeing" a Host Session that may have just started processing a caller's request.

PROBLEMS FIXED



## **CLEO CLEOSDIP3 V4.3 Cleo SNA Host Interface for AVAYA IR R3.0/R2.0/R1.X RELEASE NOTES**

### **NOTE:**

**Please see Previous Release Notes (eg. V4.2, V4.1, V4.0, V2.5) for previous enhancements/fixes to the Cleo SNA Avaya Host Interface Software.**

### **FEATURES ADDED**

**1. CLEOSDIP3 is the new name of the Cleo SNA Host Interface for Avaya IR R3.0/R2.0/R1.X.**

The name was changed to allow the new 4.3 Release, **CLEOSDIP3**, to be installed on top of an existing 4.2 Release, **CLEOSDIP**, and preserve the existing configuration information. And if necessary remove the CLEOSDIP3 4.3 Release package and be restored to the CLEOSDIP 4.2 Release Package. Also, any older existing SNA Host Interface software can have the Release 4.3, **CLEOSDIP3**, software package installed on top of it and preserve its current SNA configuration.

**2. CLEOSDIP3 will install on an Avaya IR3.0 system, as well as an Avaya IR 2.0 or Avaya 1.X system.**

The previous Cleo Host Interface Software for SNA would fail to install on an Avaya IR 3.0 system. The installation process was changed in Version 4.3 of CLEOSDIP3 to now allow the Cleo Host Interface Software to be installed on an Avaya IR 3.0 system.

**3. NEW HOST("H") COMMAND, "hrfree", TO ONLY FREE AN ASSIGNED HOST SESSION, IF THE HOST SESSION IS IN, and STILL IN, a "logged in" STATE.**

The standard "hfree" command would free Host Session no matter what "state" the Host Session was in. This could cause a problem if a script would look for the state of a Host Session to be "logged in". And then the script would do an "hfree" command.

The problem with this process is that there is a time window when the Host Session that was in a "logged in" state could be changed to a "transaction" state, between the time of using hstatus to find the state and hfree to free the Host Session.

With the new "hrfree" host command, the Host Session is only "freed" if it is STILL IN A "logged in" state.

The new "hrfree" command was added, because scripts are often used to try to handle Mainframe IDLE TIMEOUTS by moving screens on a "logged in" Host Session to avoid having the Host Session be timed out by the Mainframe. The scripts that try to handle IDLE TIMEOUTS typically looked for "logged in" sessions, and then "hfree" the session to move screens. The problem with a Host Session intermittently moving out of "logged in" state, due to use by a caller, was occurring for these scripts. The new "hrfree" command avoids "freeing" a Host Session that may have just started processing a caller's request.

**PROBLEMS FIXED**

## **CLEO CLEOTDIP V4.2 Cleo TN3270/TN5250 Host Interface for AVAYA IR R2.0/R1.X RELEASE NOTES**

### **NOTE:**

**Please see Previous Release Notes (eg. V4.1, V4.0, V2.5) for previous enhancements/fixes to the Cleo TN3270/TN5250 Avaya Host Interface Software.**

### **FEATURES ADDED**

#### **1. CLEOTDIP is the new name of the Cleo TN3270/TN5250 Host Interface for Avaya IR R2.0/R1.X.**

The name was changed to allow the new 4.2 Release, **CLEOTDIP**, to be installed on top of an existing 4.1 Release, **CleoTDIP**, and preserve the existing configuration information. And if necessary remove the CLEOTDIP 4.2 Release package and be restored to the CleoTDIP 4.1 Release Package. Also, any older existing TN3270 Host Interface software can have the Release 4.2, **CLEOTDIP**, software package installed on top of it and preserve its current TN3270 configuration.

#### **2. NEW AGDIP3270 PARAMETER TO ALLOW POSITIONING OF CURSOR TO START OF A FIELD EVEN THOUGH NO DATA IS TO BE PLACED IN THE FIELD.**

When the following parameter is set in the file  
/vs/etc/default/agdip3270

DO\_MOVE\_CURSOR=1

And an IVR Designer, Script Builder, or Voice@Work application sends a screen with a field that has "MOVECURSOR" anywhere in the field name, the cursor is positioned to the start of that Field. No data is placed in the screen buffer.

The reason for this feature has to do with the way some newer Mainframe applications work. If a PF key (eg. PF1) is used, a POP UP screen will be presented by the Mainframe. The exact POP UP screen depends on where the cursor is currently positioned.

There was no way to allow an application to position the cursor before sending an AID key until this feature was added.

#### **3. NEW AGDIP3270 PARAMETER TO ADD STAGGER TIME BETWEEN SESSIONS WHEN DOING HASSIGN, HLOGINF, HLOGOUTF, and WHEN RESTARTING VOICE SYSTEM.**

When the following parameter is set in the file  
/vs/etc/default/agdip3270

STAGGER\_TIME=1

the Cleo Host DIP will delay the number of seconds (t) specified by the parameter

in the file /vs/etc/default/agdip3270

STAGGER\_BETWEEN\_RETRIES=t

#### **3. ADDED "H" COMMANDS, HASSIGNF and HLOGOUTF, TO NOT STAGGER BETWEEN SESSIONS.**

These new commands ignore the "STAGGER\_TIME" and

"STAGGER\_BETWEEN\_RETRIES" parameters in the file  
/vs/etc/default/agdip3270 so that they can be used when no STAGGER is  
desired.

### **PROBLEMS FIXED**

## **CLEO CLEOSDIP V4.2 Cleo SNA Host Interface for AVAYA IR IR R2.0/R1.X RELEASE NOTES**

### **NOTE:**

**Please see Previous Release Notes (eg. V4.0, V2.5) for previous enhancements/fixes to the Cleo SNA Avaya Host Interface Software.**

### **FEATURES ADDED:**

#### **1. CLEOSDIP is the new name of the Cleo SNA Host Interface for Avaya IR R2.0/R1.X.**

The name was changed to allow the new 4.2 Release, **CLEOSDIP**, to be installed on top of an existing 4.0 Release, **CleoSDIP**, and preserve the existing configuration information. And if necessary remove the CLEOSDIP 4.2 Release package and be restored to the CleoSDIP 4.0 Release Package. Also, any older existing SNA Host Interface software can have the Release 4.2, **CLEOSDIP**, software package installed on top of it and preserve its current SNA 3270 configuration.

#### **2. NEW AGDIP3270 PARAMETER TO ALLOW POSITIONING OF CURSOR TO START OF A FIELD EVEN THOUGH NO DATA IS TO BE PLACED IN THE FIELD.**

When the following parameter is set in the file  
/vs/etc/default/agdip3270

DO\_MOVE\_CURSOR=1

And an IVR Designer, Script Builder, or Voice@Work application sends a screen with a field that has "MOVECURSOR" anywhere in the field name, the cursor is positioned to the start of that Field. No data is placed in the screen buffer.

The reason for this feature has to do with the way some newer Mainframe applications work. If a PF key (eg. PF1) is used, a POP UP screen will be presented by the Mainframe. The exact POP UP screen depends on where the cursor is currently positioned.

There was no way to allow an application to position the cursor before sending an AID key until this feature was added.

#### **3. NEW AGDIP3270 PARAMETER TO ADD STAGGER TIME BETWEEN SESSIONS WHEN DOING HASSIGN, HLOGINF, HLOGOUTF, and WHEN RESTARTING VOICE SYSTEM.**

When the following parameter is set in the file  
/vs/etc/default/agdip3270

STAGGER\_TIME=1

the Cleo Host DIP will delay the number of seconds(t) specified by the parameter

in the file /vs/etc/default/agdip3270

STAGGER\_BETWEEN\_RETRIES=t

#### **3. ADDED "H" COMMANDS, HASSIGNF and HLOGOUTF, TO NOT STAGGER BETWEEN SESSIONS.**

These new commands ignore the "STAGGER\_TIME" and "STAGGER\_BETWEEN\_RETRIES" parameters in the file /vs/etc/default/agdip3270 so that they can be used when no STAGGER is

desired.

**PROBLEMS FIXED**

**CLEO CleoTDIP V4.1 Cleo TN3270/TN5250 Host  
Interface for AVAYA IR IR R2.0/R1.X RELEASE NOTES**

**NOTE:**

Please see Previous Release Notes (eg. V4.0, V2.5) for previous enhancements/fixes to the Cleo TN3270/TN5250 Avaya Host Interface Software.

**FEATURES ADDED**

**PROBLEMS FIXED**

1. TN5250 code could loop forever if an input field contained imbedded attributes.  
This bug was fixed in the V4.1 Release.

## **CLEO CleoTDIP V4.0 Cleo TN3270/TN5250 Host Interface for AVAYA IR IR R2.0/R1.X RELEASE NOTES**

### **NOTE:**

**Please see Previous Release Notes (eg. V2.5) for previous enhancements/fixes to the Cleo TN3270/TN5250 Avaya Host Interface Software.**

### **FEATURES ADDED**

1. **Support for Solaris 8 & Solaris 10, and Avaya IR Version 2.0/1.X.**  
The TN3270 Host Interface Software Version 4.0 will install the correct version of the Cleo DIP and "h" commands depending on what Solaris Operating System is being used, Solaris 8 or Solaris 10, and what Avaya IR Version, IR 1.1/1.2/1.3 or the new IR 2.0.
2. **The Cleo Host Interface for TCP/IP (TN3270/TN5250) Software Package is now called *CleoTDIP*.** Previously the package was called *Ctnhdip*.
3. **The *CleoTDIP* package can be installed on top of an existing *Ctnhdip*, or *vstndip* package.** If that option is chosen, then the configuration files from the *Ctnhdip* or *vstndip* package are used, until the *tnconfig* command is run again to change them.
4. **DIP Configuration Parameters added.**  
Setting the *FILTER\_ATTR* parameter to 1, causes 5250 attributes to be replaced by Spaces. This was done to support Clients converting old Centurion applications, since Centurion did that by default.  
DIP Configuration Parameters to add support for 5250 PAGEUP, PAGEDOWN, and TABS were also added.

### **PROBLEMS FIXED**

2. **Intermittently all the Host Sessions on a Host Connection could get stuck in a "recovery" state forever.**  
A problem in the Host DIP code, that only occurred on the Solaris platform, caused an Application's Recovery code to not be run. The session would stay in the recovery state, and the Host DIP would not try to recover. This problem was fixed in the 4.0 Release.
3. **TN5250 code for 1 byte RPA commands that resulted in only half a screen being displayed.**  
The problem has been fixed with the V4.0 release.



## CLEO CleoSDIP V4.0 Cleo SNA Host Interface for AVAYA IR IR R2.0/R1.X RELEASE NOTES

### NOTE:

Please see Previous Release Notes (eg. V2.5) for previous enhancements/fixes to the Cleo SNA Avaya Host Interface Software.

### FEATURES ADDED

1. **Support for Solaris 8 & Solaris 10, and Avaya IR Version 2.0/1.X.**  
The TN3270 Host Interface Software Version 4.0 will install the correct version of the Cleo DIP and "h" commands depending on what Solaris Operating System is being used, Solaris 8 or Solaris 10, and what Avaya IR Version, IR 1.1/1.2/1.3 or the new IR 2.0.
2. **The Cleo Host Interface for SNA Software Package is now called *CleoSDIP*.**  
Previously the package was called *Csnhdip*.
3. **The *CleoSDIP* package can be installed on top of an existing *Csnhdip*, or *vsnadip* package.**  
If that option is chose, then the configuration files from the *Csnhdip* or *vsnadip* package are used, until *snaconfig* command is run again to change them.
4. If that option is chosen, then the configuration files from the *Ctnhdip* or *vstndip* package are used, until the *tnconfig* command is run again to change them.

### PROBLEMS FIXED

1. Contains a fix for a core dump that could occur on multi processor systems.

## CLEO Ctnhdip V2.5 for AVAYA IR R1.1/1.2 Release

### NOTES

**NOTE:**       The CLEO Ctnhdip V2.5 Release was ported from the CLEO VSTNDIP V2.4 release. The addition of TN5250 support to the existing TN3270 support is the key feature of the Ctnhdip V2.5 Release. SNA5250 support WAS NOT ADDED.

### FEATURES ADDED

5. **Support for TN5250 Protocol has been to the existing support for TN3270.**

The Host Interface will work with a TN5250 TNSERVER (Usually an AS/400 itself) as well as a TN3270 TNSERVER.

All of the "h" commands remain the same and the Host DIP works the same as it has in the past.

**TN5250 Protocol** is **ONLY** specified when configuring the emulators using the *tnconfig* command. The rest of the Host Interface is identical to version 2.4.

6. **The Cleo Host Interface for TCP/IP Software Package is now called Ctnhdip.** Previously the package was called *vstndip*.
7. **The Ctnhdip package can be installed on top of an existing vstndip package.** If that option is chosen, then the configuration files from the vstndip package are used, until the *tnconfig* command is run again to change them.
8. **2 IVR Designer External Functions and their corresponding TAS functions were developed for use with VXML Voice Applications.** Previously, each time a VXML Voice Application invoked a TAS IVR Designer Host Application, a new Host Session(LU) could be used and the Host Application had to navigate back to the "transaction" based screen each time. Now the Cleoresrvlu external function can be used by the Host Application when it is initially invoked to reserve a Host Session(LU). Then when the Host Application does Host SEND or Host SEND/RECEIVE commands, the same Host Session(LU) will be used instead of releasing the Host Session(LU) each time the Host application is called. When the Host Session(LU) is no longer needed, Cleorelslu can be called to put the Host Session(LU) back in the pool. The last Host SEND or Host SEND/RECEIVE needs to navigate the Host session(LU) back to a "transaction" based screen before calling Cleorelslu, so that the Host Session(LU) will get back to a "logged in" state. When a Host Session(LU) is reserved, via Cleoresrvlu, then that Host Session(LU) remains in a "transaction" state until Cleorelslu is called.

### FEATURES CHANGED

1. **hfree** also clears the "reserved" status of a Host Session(LU) if it had been in reserved state.
2. **hstatus** has an extra column displayed. The last column labeled

"VXML RESRVCHAN" lists the Voice Channel that a Host Session is reserved for. If no Voice Channel has the Host Sessions reserved, a blank is displayed in the column entry.

3. **tnconfig** has 2 new options

**tnconfig -NE -h tnserver -n 32**

where: **-NE** means to NOT USE the 3270 Extensions nor 5250 Environment extension.

**tnconfig -h tnserver -n 32,32 -p 3,5**

where: **-p** specifies **3** for the corresponding host/tnserver connection to use TN3270 protocol and **5** for the corresponding host/tnserver connection to use TN5250 protocol.

### **PROBLEMS FIXED**

5. **hnewsript** would result in a Host DIP core dump, due to a null pointer being used for an unassigned LU.  
The problem has been fixed with the V2.5 release. Additional checks in the Cleo Host Interface "h" commands are now made for null pointers.
6. **sb\_logoff** was being run twice (by mistake) and that could result in seeing the error messages "**mesgrcv() failed; errno 0**".  
This problem has been fixed with the V2.5 release.
7. **Quickstart guides for SNA and TN3270** did not explain how to use the command line "**screen\_capture**" command.  
The Quickstart guides now have an Appendix to discuss the Cleo "**screen\_capture**" command and the Screen Capture Users Guide is supplied on the CD as the pdf file **screencap.pdf**.
8. **On system re-boot, the Host Interface tn3270 or sna3270 emulators were being stopped and started twice.**  
This problem has been fixed with the V2.5 release.

### **CLEO Csnahdip V2.5 for AVAYA IR R1.1/1.2 Release** **NOTES**

**NOTE:**        **The CLEO Csnahdip V2.5 Release was ported from the CLEO VSSNADIP V2.4 release. SNA5250 support WAS NOT ADDED.**

### **FEATURES ADDED**

1. **The Cleo Host Interface for SNA Software Package is now called Csnahdip.** Previously the package was called **vssnadip**.
2. **The Csnahdip package can be installed on top of an existing vssnadip package.** If that option is chosen, then the configuration files from the vssnadip package are used, until the **snaconfig** command is run again to change them.

### **3. 2 IVR Designer External Functions and their corresponding TAS functions**

**were developed for use with VXML Voice Applications.** Previously, each time a VXML Voice Application invoked a TAS IVR Designer Host Application, a new Host Session(LU) could be used and the Host Application had to navigate back to the "transaction" based screen each time. Now the Cleoresrvlu external function can be used by the Host Application when it is initially invoked to reserve a Host Session(LU). Then when the Host Application does Host SEND or Host SEND/RECEIVE commands, the same Host Session(LU) will be used instead of releasing the Host Session(LU) each time the Host application is called. When the Host Session(LU) is no longer needed, Cleorelslu can be called to put the Host Session(LU) back in the pool. The last Host SEND or Host SEND/RECEIVE needs to navigate the Host session(LU) back to a "transaction" based screen before calling Cleorelslu, so that the Host Session(LU) will get back to a "logged in" state. When a Host Session(LU) is reserved, via Cleoresrvlu, then that Host Session(LU) remains in a "transaction" state until Cleorelslu is called.

#### **FEATURES CHANGED**

1. **hfree** clears the "reserved" status of a Host Session(LU) if it had been in a reserved state.

## CLEO VSTNDIP/VSSNADIP V2.4 for AVAYA IR R1.1/1.2

### RELEASE NOTES

NOTE: The CLEO VSTNDIP/VSSNADIP V2.4 Release was ported from the CLEO VSTNDIP/VSSNADIP V2.3 release.

The CLEO VSTNDIP/VSSNADIP V2.3 Release was originally ported from the CLEO VSTNDIP 8.5 release.

Following the CLEO VSTNDIP/VSSNADIP V2.4 and V2.2 Release Notes, are the Historic CLEO VSTNDIP 8.5, 8.4, 8.3 Release Notes, for reference.

All of the 8.5 Features have been included in the CLEO VSTNDIP/VSSNADIP V2.4 Release.

### FEATURES ADDED

1. When licensing the Cleo Host Interface Software, using the snaaddlic or tnaddlic program the user will be asked to input the Cleo Serial Number.

The Cleo Serial Number will be stored on the system. The Cleo Serial Number will be requested by Cleo Technical Support Specialists, when support help is requested for the system.

2. A new program "cleoserial" has been released. It can be used to display the Cleo Serial Number of the system, or to enter the Cleo Serial number.

The program options are:

cleoserial -r                      Display the current Cleo Serial Number

cleoserial -w sernum              Enter the Cleo Serial Number **sernum** on this system.

3. A new SDLC board is now supported by the "snaconfig" utility. The Sparc SPARC\_HSI\_PCI\_SDLC card type specifies to use the board. The "snaconfig" utility also runs the setup program for the board /opt/SUNWconn/bin/hsip\_init.

**FEATURES CHANGED**

NONE.

## **PROBLEMS FIXED**

1. **An SNA "ASSERT" error would intermittently occur when doing stop\_hi using SNA over SDLC with the SPARC\_HSI\_PCI\_SDLC board.**  
This problem has been fixed.  
The problem occurred when the stop\_hi script cleaned up the emulator's shared memory and semaphores before stopping the SNA Engine.
2. **When dialed into an AIR system, running the "start\_hi" script resulted in the dialin port being assigned to the backgrounded tn3270 or sna3270 emulators. This would cause the modem to hang after the user running start\_hi hung up.**  
This problem has been fixed.  
The start\_hi script now runs the "batch" command to startup the backgrounded tn3270 or sna3270 emulators so that they no longer get assigned to the dialin port.
3. **When running screen\_capture for a new Application after installing the vstndip or vssnadip Cleo 2.2 release package, an error "Error opening New Application File" was reported and the screen\_capture command was aborted.**  
This problem has been fixed.  
The problem occurred when the /vs/data/host directory did not exist on the system. This directory is used to store capture files for applications. The vstndip and vssnadip installation scripts now create the /vs/data/host directory, if it does not exist.
4. **The vssnadip package detection of HARD FAILURE conditions in the Host Connection to the mainframe for SNA over Ethernet connections was improved. Sometimes when the SNA connection to the host was not functioning, the Host DIP did NOT detect this condition.**  
Now with SNA over Ethernet Host connections, the Host DIP will detect a Hard Failure/Loss of a Host Connection. Previously, the Host DIP checked for the presence of the DSR signal going away to ascertain that the Host Connection was dropped. This was sufficient for SNA over SDLC Host Connections. However, with SNA over Ethernet connections, DSR is always HIGH, even when the Host Connection is down.  
As a result, the vssnadip package will now do automatic Host Connection recovery, when the Host Connection is no longer functioning.
3. **When using the optional Host DIP Configuration parameters  
DO\_EOF\_BEGIN\_FIELD  
Or  
DO\_EOF\_CURRENT\_FIELD  
to cause the Host DIP to execute an Erase To End of Field command for any field that contains the string "EOF\_begin" or "EOF\_current" as part of its name, the Erase To End of Field command was NOT being executed.**  
This problem has been fixed. The Erase to End of Field command is now properly executed by the Host DIP.

4. When doing a pkgadd of vstndip or vssnadip, the Architecture was reported to be "i486" instead of "sparc".

This problem has been fixed. Pkgadd will now report the Architecture as "sparc" for both vstndip and vssnadip.



## CLEO VSTNDIP/VSSNADIP V2.2 for AVAYA IR R1.2

### RELEASE NOTES

**NOTE:**      **The CLEO VSTNDIP/VSSNADIP V2.2 Release**  
**was**

                 originally ported from the CLEO  
                 VSTNDIP 8.5  
                 release.

**V2.2**                      Following the CLEO VSTNDIP/VSSNADIP

                 Release Notes, are the Historic  
                 CLEO VSTNDIP 8.5, 8.4, 8.3 Release  
                 Notes, for  
                 reference.

                 All of the 8.5 Features have been  
                 included in the CLEO VSTNDIP/VSSNADIP  
                 V2.2 Release.

### FEATURES ADDED

1. The pkgadd for Cleo Version V2.2, will automatically install the correct Version of the Host DIP, based on what version of Avaya IR is running on the system.

Systems can either be running Avaya IR R1.1 or Avaya IR 1.2. The Avaya libraries that the Cleo Host DIP uses are different for R 1.1 and R 1.2.

The pkgadd installation scripts for vstndip and vssnadip determine what version of the Host DIP to load on the Avaya System.

2. The "synchost" package add package no longer exists.

The functions performed by the "synchost" package are now part of the "vstndip" package itself.

3. NEW "cleo\_te" command to eliminate the need to use FUNCTION KEYS when doing 3270 Terminal Emulation.

The "cleo\_te" command functions exactly like the "sb\_te" command. The only difference being that "cleo\_te" does not force the user to use FUNCTION KEYS for the 3270 PF commands.

                 PF1-PF24                      F1, F2... with sb\_te

                 PF1-PF24                      ESC 1, ESC 2, ... with cleo\_te

FUNCTION KEYS for the 3270 PA commands

                 PA1, PA2, PA3                      ESC ESC F1, ESC ESC F2, ESC ESC F3 with

sb\_te

                 PA1, PA2, PA3                      ESC ESC 1, ESC ESC 2, ESC ESC 3 with

cleo\_te

The "cleo\_te" command was added to help users dialing into Avaya IR systems, with emulators that do not support FUNCTION KEYS.

For a complete list of the "cleo\_te" PF and PA key mappings, run "cleo\_te" and do a CTRL U and choose **Customize** and then choose

## Key Definitions.

### 4. NEW H command "cleoispy" to eliminate the need to use FUNCTION KEYS when doing 3270 Terminal Emulation.

The "cleoispy" command functions exactly like the "hispy" command (See description in CLEO VSTNDIP 8.5 RELEASE NOTES). The only difference being that "cleoispy" does not force the user to use

FUNCTION KEYS for the 3270 PF commands.

PF1-PF24 F1, F2... with hispy

PF1-PF24 ESC 1, ESC 2, ... with cleoispy

FUNCTION KEYS for the 3270 PA commands

PA1, PA2, PA3 ESC ESC F1, ESC ESC F2, ESC ESC F3 with hispy

PA2, PA2, PA3 ESC ESC 1, ESC ESC 2, ESC ESC 3 with cleoispy

The "cleoispy" command was added to help users dialing into Avaya IR systems, with emulators that do not support FUNCTION KEYS.

For a complete list of the "cleoispy" PF and PA key mappings, run "cleoispy" and do a CTRL U and choose **Customize** and then choose **Key Definitions**.

### 5. Tuning the Avaya IR Solaris 8 Operating system to allow up to 254 LUs.

Tuning specific to Solaris 8 is a feature of the CLEO VSTNDIP V2.0 product.

Specifically, the following increments are added to the kernel variables listed below. These values appear in the /etc/system file

KERNEL VARIABLE	INCREMENTAL VALUE
shmsys:shminfo_shmseg	1024
shmsys:shminfo_shmmni	1024
semsys:seminfo_semmni	1024
semsys:seminfo_semmns	1024
semsys:seminfo_semmnu	1024
semsys:seminfo_semume	1024
msgsys:msginfo_msgtql	1024
msgsys:msginfo_msgmni	1024

Another kernel variable(msginfo\_msgmb) is not incremented.

It is set to a fixed value of 65536, no matter what value it had before.

If the msginfo\_msgmb variable was not in the /etc/system file, then it is

added to the /etc/system file and set to a value of 65536.

KERNEL VARIABLE	SET TO VALUE
msgsys:msginfo_msgmb	65536

### 6. DIP now will do a SEND SCREEN even if the current screen is the WRONG screen.

Historically, a SEND SCREEN would error out if the current Host Screen was not the screen defined in the SEND SCREEN command. In general, this is the correct thing to do, however, while trying to recover it is sometimes necessary to do a SEND SCREEN no

matter what Host Screen is the current screen.

To Turn on this new option, a DIP Configuration parameter in the /vs/etc/default/agdip3270 text configuration file must be set:

<b>WRONG_SCREEN_ACTION=0</b>	Default setting, the DIP will report a WRONG SCREEN error HOST007 and not execute the SEND SCREEN command.
<b>WRONG_SCREEN_ACTION=1</b>	The DIP will report a WRONG SCREEN error HOST007 and then do a SEND SCREEN no matter what SCREEN is the CURRENT SCREEN.
<b>WRONG_SCREEN_ACTION=2</b>	The DIP will report a WRONG SCREEN error HOST007 and then force the LU into Recovery.

**7. New "cleo\_conv" command to convert Host Screen Capture files from older CONVERSANT V6-V8(R9) systems to Solaris non-byte swapped format on the Avaya IR R1.2 system.**

The "cleo\_conv" command is executed as follows:

**cleo\_conv appl**  
Where **appl** is the application name of the Script Builder, Voice@Work, or IVR Designer application.

When bringing over an application from an existing Conversant System, the "cleo\_conv" command will convert the application's Screen Capture file. The conversion allows the Cleo Screen Capture Utility, "screen\_capture" to be used to capture additional screens from the Avaya IR R1.2 system. Additionally, the Cleo "hispy" and "cleoispy" commands can be used to capture additional screens from the Avaya IR R1.2 system.

The "cleo\_conv appl" command creates the following files, when run:

**SCRIPT BUILDER**

/att/trans/sb/appl/appl.sc	New non-byte swapped file
/att/trans/sb/appl/appl.sc.org	Copy of file before conversion

**Voice@Work and IVR DESIGNER**

/vs/data/host/appl.sc	New non-byte swapped capture file
/vs/data/host/appl.nam	New non-byte swapped name file
/vs/data/host/appl.sc.wk	New non-byte swapped capture working file
/vs/data/host/appl.nam.wk	New non-byte swapped name working file
/vs/data/host/appl.sc.org	Copy of capture file before

	conversion
/vs/data/host/appl.nam.org	Copy of name file before
	conversion

**8. New "cleo\_convback" command to convert Host Screen Capture files from the new Avaya IR R1.2 non-byte swapped format to an older Conversant V6-V8 (R9) system format (byte-swapped) .**

The "cleo\_convback" command is executed as follows:

**cleo\_convback appl n**

Where **appl** is the application name of the Script

Builder,

Voice@Work , or IVR Designer appliation.

Where **n** is the older Conversion Number(6, 7, or 8).

The "cleo\_convback" command is intended to be used by

developers

that have a need to take a Host Screen Capture File created

on the

Avaya IR R1.2 system back to an older system.

This capability can be used by Script Builder developers to

capture

new screens on the Avaya IR R1.2 platform and then take the

capture

file back to an older Conversant Platform and modify the

Script

Builder application. Since Script Builder Development can

not be

done on the Avaya IR R1.2 platform, this provides a work

around

solution to modifying Script Builder applications that need

to run

on the Avaya IR R1.2 platform.

The "cleo\_convback appl n" command creates the following

files, when

run:

**SCRIPT BUILDER**

/att/trans/sb/appl/appl.sc.Vn Byte swapped version of

capture

file to take to Conversant

System

/vs/data/host/appl.sc.Vn

Byte swapped version of

capture

file to take to Conversant

System

/vs/data/host/appl.nam.Vn

Byte swapped version of

name

file to take to Conversant

System

/vs/data/host/appl.sc.wk.Vn

Byte swapped version of

capture

work file to take to

Conversant Sys

/vs/data/host/appl.nam.wk.Vn

Byte swapped version of

capture

work file to take to

Conversant Sys

**9. The "start\_hi" script that is part of the vssnadip package has**

**commented out SNA Protocol Trace commands.**

To enable SNA Protocol Tracing, uncomment out the following commands. The commands create binary trace files /voicel/cleotrc1 & /voicel/cleotrc2.

```
#/opt/sna/bin/snaadmin set_trace_file, trace_file_type =  
IPS, dual_files = YES, trace_file_size = 10000000,  
file_name = /voicel/cleotrc1, file_name_2 =  
/voicel/cleotrc2  
#/opt/sna/bin/snaadmin set_trace_type, trace_flags = ALL  
#/opt/sna/bin/snaadmin add_dlc_trace
```

**10.A new script "/voicel/cleodotrace" converts the binary trace files /voicel/cleotrc1 and /voicel/cleotrc2 to text SNA Protocol trace files**

/voicel/cleosna1.dmp and /voicel/cleosna2.dmp.

## **FEATURES CHANGED**

1. The Host Dip Configuration parameter file  
"/vs/etc/default/agdip3270" no longer supports  
PARAMETER=YES  
PARAMETER=NO

Parameters must now use NUMERIC values: 1 for YES and 0 for NO, instead.

PARAMETER=1	(yes use this parameter)
PARAMETER=0	(no do not use this parameter)

2. The Cleo Screen Capture utility(screen\_capture) for IVR Designer, now places capture files(.sc) and name files(.nam) in the directory  
/vs/data/host

Previously, "screen\_capture" placed the capture files(.sc) and name

files(.nam) in the directory  
/lt/trans/sc/host\_sc

as instructed by Avaya IVR Designer developers, even though IVR Designer was looking for the files in /vs/data/host.

3. The "snaconfig" program will now automatically change the /etc/opt/sna/snadlc.ini configuration file to use the proper Ethernet Device name.

Previously, the /etc/opt/sna/snadlc.ini configuration file had to be changed manually to use the correct device name. The "snaconfig" program now uses the "ifconfig -a" command to determine the correct device to use. For Blade systems this is "/dev/eri" for Ultra systems this is "/dev/hme".

## **PROBLEMS FIXED**

- 5. When running screen\_capture for a new Application after installing the vstndip or vssnadip Cleo 2.2 release package, an error "Error opening New Application File" was reported and the screen\_capture command was aborted.**  
This problem has been fixed.  
The problem occurred when the /vs/data/host directory did not exist on the system. This directory is used to store capture files for applications. The vstndip and vssnadip installation scripts now create the /vs/data/host directory, if it does not exist.
- 6. When running sb\_te for any Host Session with the vssnadip package an error "/opt/sna/bin/hte3270: syntax error at line 1: `(' unexpected" Problem was reported, no matter what Host Session was specified.**  
This problem has been fixed.  
A corrupted hte3270 executable program that sb\_te uses was corrupt. The vssnadip package was remade with the proper hte3270 executable.
- 7. When specifying a range to one of the "h" commands that included a comma separator and a dash separator, information for Host Session 0 was always include, whether or not Host Session 0 was specified. For example, "hstatus 1,4-5" would show the status for Host Sessions 0, 1, 4, and 5  
Instead of 1, 4, and 5.**  
This problem has been fixed.  
Information about Host Session 0 is only provided when Host Session 0 is specified.
- 8. Host messages would be reported as "CPRxxx" instead of "HOSTxxx" messages by the "disp message" function on an Avaya IR R1.2 system and reported correctly as "HOSTxxx" messages an an Avaya IR R1.1 system.**  
This problem has been fixed.  
Host messages are now properly displayed with a HOST prefix for both Avaya IR releases R1.1 and R1.2.
- 9. An agdip3270 core dump would intermittently occur.**  
This problem has been fixed.  
The core dump was caused because agdip3270 was linked with a Avaya IR R1.1 library that could cause a core dump when that version of agdip3270 was used on an Avaya IR R1.2 system.  
The agdip3270 program is now linked with the Avaya IR R1.2 libraries.
- 10. Host Application's would not find a "blankscreen" or screen identified by cursor position only, with no text identifiers.**  
This problem has been fixed.  
Host Application's will successfully find a "blankscreen" or a screen identified by cursor position only.
- 11. An agdip3270 core dump would occur when DIP tracing was enabled, if a host application defined a "blankscreen" or a screen identified by cursor position only, with no text identifiers.**  
This problem has been fixed.  
DIP tracing now does not try to output variables specified with a NULL pointer.

12. **HOST013 messages reported when NOT the case, that all the LUs assigned to an application were in recovery.**  
This intermittent problem has been fixed.  
HOST013 messages are only reported now when it is the case that all the LUs assigned to an application are recovering.
13. **HOST006 messages reported when NOT the case, that a TN3270 TNSERVER(host) connection is down.**  
This intermittent problem has been fixed.  
HOST006 messages are only reported now when it is the case that a TN3270 TNSERVER(host) connection is actually not connecting at all.
14. **The "snaconfig" program was not modifying the SNA configuration file /etc/opt/sna/sna\_node.cfg to reflect the MAXIMUM LU(max\_nau) to use from the "LU\_RANGE=x-y" line in the configuration file /etc/opt/sna/snaeth.txt|snasdlc.txt.**  
This problem has been fixed.  
The sna\_node.cfg file now correctly reflects the "max\_nau" value.
15. **A non-root user trying to use "sb\_te n" was never allowed to start the sb\_te emulation. Instead the following message was always output:**  
"No available 3270 emulator was found running with session id 0xn"  
**Even when the sessions was actually available. So a user was forced to run as "root" in order to use sb\_te.**  
This problem has been fixed. It was also fixed in cleo\_te.  
Non-root users can now run "sb\_te".
16. **A non-root user trying to run "hassign", "hdelete", or "hfree" would error out of the command and receive a message "can not cat /tmp/hcmd.\$\$ permission denied".**  
The problem has been fixed.  
Non-root users can now run hassign, hdelete, and hfree.
17. **An intermittent error would cause the following message:**  
"hostsvc file being processed by another h command"  
**and the user would be thrown back to the Unix prompt, when trying to run the hassign, hdelete, or hfree command.**  
**Even though no other hassign, hdelete, or hfree command was being processed. The purpose of locking out parallel usage of these "h" commands is to prevent corruption of the /vs/data/hostsvc file.**  
This problem has been fixed.  
The inability to use hassign, hdelete, or hfree is correctly enforced only when 1 of the commands is actually being used by another process.



## CLEO VSTNDIP 8.5 RELEASE NOTES

### FEATURES ADDED

1. NEW "H" command "hispy" to interactively "spy" and "interact" with an assigned Conversant Session. As well as CAPTURE new Host Screens.

The "hispy" command can be executed from the UNIX command line as follows:

```
hispy n                (Where: "n" is a single Conversant
Session ID              or Conversant Session ID range(eg. 0-
                        10))
```

The "hispy" command will do the following for each Conversant Session ID specified:

- A. Display the following message and then launch the "sb\_te" with the appropriate arguments to allow the user to CAPTURE any screen displayed by simply entering an "ESC B" key sequence.

Press ENTER to start sb\_te and allow interaction with

session n

USE ESC-B to CAPTURE A SCREEN -- USE CTRL-X to exit

sb\_te

- B. The CAPTURED screen is APPENDED to the Screen Capture file of the [Voice@Work](#) or Script Builder application's screen capture file(s)

/lt/trans/sc/host\_sc/appl.sc and appl.nam for

[Voice@Work](#)

/att/trans/sb/appl/appl.sc for Script Builder

of the Application currently assigned to the Specified Conversant Session ID.

**NOTE:** If NO screen capture file(s) exist, for the Application, any Screen Captures will be placed in new screen file(s)

/vs/trans/appl.vs

/vs/trans/appl.nam (optionally for [Voice@Work](#)

applications)

- C. The CAPTURED screen can then be used later, by the Application Developer, to define Screen Identifiers and Fields of the screen and use the screen in a modified version of the Application to improve Host call flow recovery, login, logout, or transaction processing.
- D. When the user is placed into the sb\_te program by the "hispy" program, all the features of "sb\_te" are available to NAVIGATE through the Host Application screens, AND CAPTURE SCREENS along the way.
- E. When finished INTERACTING/CAPTURE screens in sb\_te, use the CTRL-X key sequence to exit from the currently specified Conversant Session ID.
- F. The hispy command will exit after the Last/Only Conversant Session ID is exited with the CTRL-X key sequence.
- G. The hispy command can be entered NO MATTER WHAT STATE an ASSIGNED Conversant Session ID is in.
- H. When the hispy command is processing an ASSIGNED Conversant Session ID, the HOST DIP(/vs/bin/vrs/agdip3270) is not able to

access that Conversant Session ID.

**NOTE:** Use caution when using **hispy** on an ASSIGNED Conversant Session ID in **transaction**, **logging in**, or **logging out** state.

- I. The **hispy** command is mainly intended to help Application Developers debug problems with the Host Interface portion of Voice Applications. Therefor, **hispy** will allow the Developer full freedom to manipulate a Conversant Session ID. If such manipulation results in placing a Conversant Session ID in an "awkward/broken/confused" state, please feel free to use the **hfree/hassign** commands to **FIX** such problems.
- J. The **hsby** command is still available to simply display the current screen of an assigned Conversant Session ID.
- K. Typical uses of "**hispy**" are:
  1. Capture an **UNRECOGNIZED** error screen that was never encountered before.
  2. Capture screen(s) that were never encountered before until a non-common call flow was taken by the caller.
  3. Navigate through Host Application Screens, capturing screens along the way, to define a "**recovery**" sequence to add to the current Application.
  4. Test/develop Host call flows during development.

...

## **2. SCREEN CAPTURE FOR Voice@Work INSTALLED AUTOMATICALLY WITH VSTNDIP 8.5.**

The command line version of the "screen\_capture" tool is available automatically with vstndip 8.5. See Users Guide on the CD.

screen\_capture -session sessid(0-253) -app application\_name  
Above is used to capture screens for Voice@Work.

screen\_capture -app application\_name

Above is used to maintain the Voice@Work screen capture file.

Name screens, delete screens, etc.

## **3. MAXIMUM OF 254 LUs NOW SUPPORTED FOR TN3270 and SNA.**

## **4. HARDFAIL PROCESSING ADDED, TO ATTEMPT TO WORK AROUND TNSERVER or HOST MAINFRAME OUTAGES. WHETHER THEY BE SCHEDULED OUTAGES OR "BLUE SKY FAILURES".**

When a TNSERVER or HOST MAINFRAME is taken out of service for scheduled maintenance, or a Network unplanned(Blue Sky failure) outage occurs, the CONVERSANT sessions can go into a "recovery mode", forever, or the DIPA MESSAGE Queue can fill up and cause the HOST INTERFACE to be non-functional.

The "HARDFAIL" enhancement in both the TN3270 and SNA, 8.5 release, tries to work around this problem by doing the following:

- A. Detecting a "hardfail" condition
- B. Automatically restarting the Host Interface to clear the failure condition.
- C. If the condition persists, the "HARDFAIL" enhancement continues to try to restart the Host Interface.
- D. The HOST DIP now goes into a "hibernate" mode while the HARDFAIL enhancement attempts to restart the Host Interface so that the DIPA Message Queue will not fill up.

## **5. NEW "hardfail" COMMANDS AVAILABLE.**

3 new "h" commands are now available. They can be used to monitor or control the new "HARDFAIL" enhancement.

hardfail - will output the current value of HARDFAIL processing

HARD FAIL PROCESSING IS TURNED ON  
HARD FAIL PROCESSING IS TURNED OFF

hardfailon - will turn on HARD FAIL PROCESSING  
hardfailoff - will turn off HARD FAIL PROCESSING

## **6. NEW "hoffon n" COMMAND AVAILABLE.**

The new "hoffon n" (where "n" is a Conversant Session ID (0 - 253)) is now available. The "hoffon n" command will only work when the Conversant Session ID specified is not "hassigned" to an Application. So an "hfree n" command must be issued before "hoffon n". Sometimes it is handy for a Conversant System Administrator, or Voice application developer, to be able to restore an individual Conversant Host Session ID to the host "BANNER" screen. Invoking the command:

hoffon 0  
will send terminal off/on commands to the Host and should result in the  
host resending the original BANNER screen to the LU.

## **7. NEW AGDIP3270 PARAMETERS TO CONTROL ERASE TO END OF FIELD FUNCTION WHEN USING AN UNFORMATTED SCREEN.**

When the following parameter is set in the file

/vs/etc/default/agdip3270  
DO\_UNFORMAT\_SCR\_SPECIAL=YES

And a Voice@Work or Script Builder application sends a screen with a field that has "unformat\_f" anywhere in the field name, the current "unformatted" 3270 screen is CLEARED.

By using either of the following new parameters in the file

/vs/etc/default/agdip3270  
DO\_EOF\_BEGIN\_FIELD=YES  
DO\_EOF\_CURRENT\_FIELD=YES

The "clearing" of the "unformatted" 3270 screen is controlled to start clearing from the beginning of the field(DO\_EOF\_BEGIN\_FIELD) or from the current cursor position(DO\_EOF\_CURRENT\_FIELD).

## **8. NEW AGDIP3270 PARAMETER TO CONTROL THE NEW "HARDFAIL" PROCESSING ENHANCEMENT.**

The default setting for doing "HARDFAIL" processing is to have it be TURNED ON. That is, attempt to restart the Host Interface if the HOST DIP determines that the Host Interface is no longer functioning correctly.

When the following parameter is set in the file

/vs/etc/default/agdip3270  
HARD\_FAIL\_RECOVERY=NO

Then the HOST DIP will not attempt to restart the Host Interface if it is not functioning properly.

HARD\_FAIL\_RECOVERY=YES

Then the HOST DIP will attempt to restart the Host Interface if it is not functioning properly. YES is the default setting of the

HARD\_FAIL\_RECOVERY parameter, if it does not appear at all in the /vs/etc/default/agdip3270 file.

## **PROBLEMS FIXED**

### **9. SCREEN CAPTURES OF SCRIPT BUILDER SCRIPTS CONVERTED FROM PRE-V8 SYSTEMS, CAUSE SCRIPT BUILDER FAILURES.**

A bug in the sb\_conv program caused the screen capture file of a Script Builder Application(eg. sbappl.sc) to NOT be converted to V8. To work around this problem, the 8.5 release contains a new program "sc\_conv". The program resides in the "/vs/bin/util" directory. When converting a Script Builder script to V8 from an earlier Conversant version, please do the following:

```
sb_conv sbappl Version_8.0    (this converts all the old
application                    files, except sbappl.sc)
                                (this converts just the sbappl.sc
sc_conv sbappl                file to Version_8.0)
file
```

#### **SYMPTOMS OF THIS PROBLEM**

When using "cvis\_menu" and trying to run "Host Screen Definition" option

To capture or re-define screens, the following error would occur:

```
Problem in hs_get_host_screen() error code: -4
This was a fatal error, because now new screens could be
captured, and no
existing screen's definitions modified, due to the bug.
```

### **10. NON-ROOT USER UNABLE TO RUN "sb\_te n" (where "n" is a Conversant Session ID) program.**

The permissions on the /vs/bin/ag/sb\_te program were incorrect. They are now correct to allow non-root users to run "sb\_te n".

#### **SYMPTOM OF THIS PROBLEM**

For example, when a non-root user ran "sb\_te 0" the following error would always appear, and the user would not be able to view the 3270 Screen.

```
No available 3270 emulator was found running with session id 0x02
```

### **11. HOST ERRORS INCORRECTLY SHOWING UP AS FAX ERRORS.**

When doing "disp err n" HOST ERRORS were incorrectly reported as FAX errors. HOST errors are now reported correctly. The Host DIP was using the wrong include file "systemLog.h".

#### **SYMPTOM OF THIS PROBLEM**

For example, HOST LINK DOWN messages(HOST006) were being reported as FAX Message FXCNG023.

### **12. LICENSE ERRORS, INCORRECTLY, REPORTED WHEN DOING A "stop\_hi/start\_hi" SEQUENCE ON A V8 TN3270 SYSTEM.**

Even though no TN3270 Emulators were running, the license errors were reported. This would occur very rarely, usually following a network outage. The only solution was to reboot the system.

The workaround now properly restarts the license daemon, whenever a stop\_hi/start\_hi sequence is run.

#### **SYMPTOM OF THIS PROBLEM**

```
When stop_hi/start_hi was run the following error would occur:
Unable to acquire license. TN3270 will terminate.
```

### **13. A VERY RARE ERROR WHERE LUS WOULD STAY IN RECOVERING STATUS**

#### **FOREVER.**

The problem would occur when a Conversant UNIX system did not have the "lp"

device defined. This was due to the tn3270 or sna 3270 emulator style files

using the "lp" device for local print. This problem has been fixed.

#### **SYMPTOM OF THIS PROBLEM**

All the LUS would be in "recovering" state forever.

When running "sb\_te n", the status line would show X SYSTEM.

#### **14. The 3 "h" commands that can update the Host Services**

##### **file(/vs/data/hostsvc)**

hassign

hdelete

hfree

now will not run if another of these 3 "h" commands is already running.

This is done to avoid the potential of corrupting the Host Services file.

These 3 "h" commands will output a message to Standard Out, when they can

not be run("hostsvc file is being processed by another h command").

Additionally, they will return a return code of 99, when they can not be

run. This can be useful information, when these programs are run from scripts or programs.

#### **SYMPTOM OF POTENTIAL PROBLEM**

The "hstatus" command fails to show the correct status of all the Conversant sessions or does not display any Conversant Sessions at all.

#### **RETURN CODES FROM "hassign"**

##### **VAL MEANING**

- |    |   |
|----|---|
| 1  | The "hassign" command completed successfully  |
| 2  | Could not set SIG ALARM for timing out of Host Interface  |
| 1  | Could not read Host Services file(/vs/data/hostsvc)   |
| 2  | Usage error - "to" not specified  |
| 3  | Usage error – FTSCRT used incorrectly   |
| 4  | Application specified does not exist or the Host portion of the Application does not exist                                  |
| 5  | Usage error – LU range specified illegal(eg. not ascending range, range > max range value, range not numeric and not "all") |
| 6  | LUs in range not configured in Host Services file(/vs/data/hostsvc)   |
| 7  | The "hassign" command timed out because the HOST INTERFACE(Host DIP(/vs/bin/vrs/agdip3270)) is NOT RESPONDING               |
| 99 | The hostsvc file is being processed by another h command.   |

#### **RETURN CODES FROM "hdelete"**

##### **VAL MEANING**

- |   |  |
|---|--|
| 1 | The "hdelete" command completed successfully |
|---|--|

- 2 The Application is not assigned to any session
- 3 Nothing was changed(eg. the Application was already deleted or in use for file xfer)
- 4 Could not set SIG ALARM for timing out of Host Interface
- 1 Could not open Host Services file(/vs/data/hostsvc) to write new information to it
- 2 Usage error – incorrect number of arguments
- 3 Usage error - “from” not specified
- 4 Application specified does not exist or the Host portion of the Application does not exist
- 5 Could not open Host Services file(/vs/data/hostsvc) to read from it
- 6 Usage error – LU range specified illegal(eg. not ascending range, range > max range value, range not numeric and not “all”)
- 7 The “hdelete” command timed out because the HOST INTERFACE(Host DIP(/vs/bin/vrs/agdip3270)) is NOT RESPONDING
- 99 The hostsvc file is being processed by another h command

#### RETURN CODES FROM “hfree”

##### **VAL   MEANING**

- 0 The “hfree” command completed successfully
- 1 Could not set SIG ALARM for timing out of Host Interface
- 1 Could not open Host Services file(/vs/data/hostsvc) to read from it
- 1 Could not open Host Services file(/vs/data/hostsvc) to write new information to it
- 2 Usage error – no arguments specified
- 3 The host interface process(/vs/bin/vrs/agdip3270) is not running
- 4 Usage error – “all” specified in addition to other arguments. This is illegal
- 5 Usage error – incorrect number of arguments
- 6 Usage error – LU range specified illegal(eg. not ascending range, range > max range value, range not numeric and not “all”)
- 7 The Application specified is not assigned to any session
- 8 The “hfree” command timed out because the HOST INTERFACE(Host DIP(/vs/bin/vrs/agdip3270)) is NOT RESPONDING
- 9 Application does not exist or the Host portion of the Application does not exist
- 99 The hostsvc file is being processed by another h command

## **CLEO VSTNDIP 8.4 RELEASE NOTES**

### **FEATURES ADDED**

1. RETRY CONNECTION TIME PARAMETER:

When an LU is disconnected by the TNSERVER/HOST, the CLEO tn3270 emulator will continually try to reconnect. This process can be intrusive with a large number of Lus. Especially when a TNSERVER/HOST goes offline on a scheduled basis.

The previous versions of VSTNDIP had a fixed Reconnect Time of 5 Minutes as the default. The Reconnect Time could only be modified by editing the /vs/bin/util/tnstart file by hand.

Added a new parameter to the "tnconfig" program to specify the Retry time, in seconds. For Example:

```
tnconfig -t 2 -h tnhost -n 32
```

Where the 2 specifies that the tn3270 emulator should retry an LU

Every 2 seconds. The default Retry time is now 5 seconds.

NOTE: Using a Reconnect Time of 5 Minutes did cause problems for some

customers:

- \* Sessions would go into RECOVERY for long periods of time, when the TNSERVER would be re-started.
- \* Sessions would stay in recovery for a long time, but eventually recover, when a POWER OFF/ON was done.

## **2. NEW AGDIP3270 PARAMETER TO ALLOW CLEARING OF AN UNFORMATTED SCREEN:**

When the following parameter is set in the file

**/vs/etc/default/agdip3270**

```
DO_UNFORMAT_SCR_SPECIAL=YES
```

and a Voice@Work or Script Builder application sends a screen with a field that has "unformat\_f" anywhere in the field name, the current "unformatted" 3270 screen is CLEARED.

NOTE: Some Host systems do not "CLEAR" all data on an unformatted

Screen when a "CLEAR KEY" is issued by a Voice@Work or Script Builder application. Residual data was left on the screen. Setting the DO\_UNFORMAT\_SCR\_SPECIAL=YES agdip3270 parameter works around this problem.

## **PROBLEMS FIXED**

### **1. DEFUNCT PROCESS CREATED EVERY 10 MINUTES**

A bug in the /opt/tn3270/bin/tnlicd(TN3270 License Daemon) program caused the <defunct> process to be created.

SYMPTOMS OF THIS PROBLEM

- \* can't log into the system, via dialup, or even from the console.
- ⌚ Process table full messages appear on console.

### **2. RECOVERY POWER OFF/ON RETRY COUNT IGNORED**

A bug in the /vs/bin/vrs/agdip3270 program caused the RETRY COUNT to be ignored, under certain RECOVERY conditions.

SYMPTOMS OF THIS PROBLEM

- \* Sessions that go into "RECOVERING" state take a longer than expected time to bet back to a "LOGGED IN" state.
- \* Sessions that go ito "RECOVERING" state don't appear to be using the Host Application's "recovery" code.

### **3. TNCONFIG PLACED A TNSERVER/HOST NAME > 9 CHARACTERS IN THE HOSTSVCFILE**

A bug in the /vs/bin/util/tnconfig program resulted in the /vs/data/hostsvc file being corrupted. This caused unpredictable results. The tnconfig program now truncates the TNSERVER/HOST name to 9 characters in the hostsvc file, but allows the full name to be used in the TN3270 configuration files. It is often the case that DNS TNSERVER/HOST names are > 9 characters.

#### **SYMPTOMS OF THIS PROBLEM**

- \* agdip3270 core dumps and keeps respawning when start\_vs is run.
- \* hstatus only shows 1 Session or /etc/data/hostsvc file has only 1 entry
- \* hassign fails with "rejected" error
- \* hstatus fails with "can't read hostsvc file" error

## **CLEO VSSNADIP 8.3 RELEASE NOTES**

### **FEATURES ADDED**

#### **1. FIFO/SIB CARD NOW SUPPORTED FOR SNA OVER SDLC:**

The snaconfig program has been enhanced to allow an SDLC Card Type of CT=ISI\_SDLC\_FIFO to be specified, for MAP40P V8 systems. Previously the Card Type was forced to be the DIGI 2000 Compact PCI SDLC card for the UCS 1000.